



# VINCENT KARLSSON

## Fullstack Software Developer

### Techniques

- .NET
- .NET C#
- .NET Core
- Angular
- ASP.NET
- Blazor
- C#
- C++
- Entity Framework
- JavaScript
- Lua
- Node.js
- Python
- Simulator
- SOLID Principles
- SQL
- TypeScript
- Virtual Reality
- VR
- Vue

### Presentation

#### 9 YEARS IN THE BUSINESS

Vincent is a curious and driven problem solver who always strives to develop and streamline work through new technologies and strategies.

He has a positive attitude towards the idea that teamwork and a focus on health create the foundation for all solutions.

Vincent continuously develops his skills both during work and in his spare time to stay updated in the everchanging world of technology.

Currently learning: \* Golang as a backend for my hobby project a text based game with Angular as frontend. \* MongoDB as database for my text based game hobby project. \* Vue 3 fundamentals \* Nuxt as a SSR frontend combined with Optimizely 12 CMS.

Website <https://swebyte.github.io/exp/>

## Projects and assignments

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### Web Developer

#### Ejendals

Jun 2024 - Oct 2024

Vincent developed a new Progressive Web App (PWA) as an internal resource for the Ejendals sales team. This app allows users to enter product information and dynamically generates advanced charts based on each input. The primary function of the app is to create and print a report displaying these charts alongside the user inputs. Utilizing Blazor Web Assembly with a Clean Architecture approach ensured that the application was both swift and adaptable throughout its development iterations.

C# Chart JS Clean Architecture Azure Devops .NET PWA (Progressive Web App)  
Blazor Web Assembly

### Fullstack Software Developer

#### Tenstar Simulations AB

Jan 2020 - Mar 2024

Falun

Vincent was involved in creating a new Development/DevOps team for managing Tenstar's web services and other tools. The role shifted from 3D development to a full focus as a system developer. Here, we developed a completely new suite called Tenstar User Experience that included a new client for the simulator in Node.js, Electron + Angular, as well as a teacher tool in the form of a website in Angular.

The role also involved consulting in IT and hosting of servers and databases. There was room for initiative and it started a spark to driving the company towards a more cloud-based approach.

Services were created such as:

- \* Handling of analytical data with OpenSearch hosted on Linux using an intermediary app.
- \* Improved scripts and tools for the build pipeline in Python.
- \* Hosting of Prometheus & Grafana for server monitoring.
- \* Development of a major service(s) in Azure for distributing 3D software. Optimized for scalability and faster data download

<https://tenstarsimulation.com/>

JavaScript ASP.NET Entity Framework Node.js TypeScript Angular Electron Azure Devops  
.NET MongoDB

## PROJECT LEAD/PROGRAMMER

### Tenstar Simulations AB

Jan 2018 - Jun 2021

Falun

Vincent acted as project manager and programmer for integration of third-party machine control systems from different companies. As project manager, he oversaw consultants from different countries such as Poland, Bulgaria and Denmark and guided the integration of the systems with Tenstar's 3D engine for the simulated machines; Tracked Excavator and Dozer. A machine control system runs on a separate hardware and usually one communicates with it with CAN-bus or Ethernet. During the years Vincent integrated the following machine control systems:

- \* Trimble Earthworks, Excavator and Dozer support. Project required participation from Tenstar, Trimble and a consulting firm and the team was spread across the world, which posed challenges with different time zones and deadline for the big german Bauma exhibition.
- \* Leica's new MCP80, Excavator support. Consultants from Denmark, CAN-bus integration.
- \* Topcon's 3DMC, upgrade to newer Android based system with an Android tablet.
- \* Novatron Xsite from Finland, integration was done with both the old hardware and the new Landnova X which could be run directly on the simulator without external hardware.

<https://tenstarsimulation.com/>

Project Management

Lua

C++

## PROGRAMMER

### Tenstar Simulations AB

May 2015 - Jan 2018

Vincent has worked as a 3D programmer and training programmer, where the tasks have involved simulating various machines such as:

- \* Excavator, Dozer, Articulated Hauler
- \* Counterbalance Forklift
- \* Forwarder & Harvester
- \* Tractor

The exercises were written in LUA & C++ and targeted students in education with support for text-to-speech, session playback, networking, VR and reporting tools. This, combined with the development of Tenstar's "in-house" 3D engine using DirectX11 and Nvidia PhysX.

Part of the work also involved working with result data and building systems to save practice results in a database using .NET.

<https://tenstarsimulation.com/>

Virtual Reality

C#

Lua

Game development

.NET

C++

## Courses and certifications

### 3D Programming

2015

Playground Squad

Electrical Engineering/Programming specialization

2013

NTI Gymnasiet

## Education

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3D Programming (Formal education)

2013 - 2015

Playground Squad (Falun)

Electrical Engineering/Programming specialization (Formal education)

2010 - 2013

NTI Gymnasiet (Falun)

## Languages

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English

No proficiency

Swedish

No proficiency

## Skills

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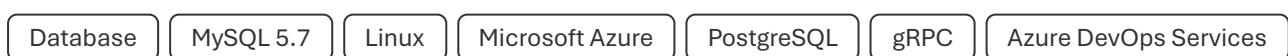
### Methods & Processes



### Operational area and function



### Platforms



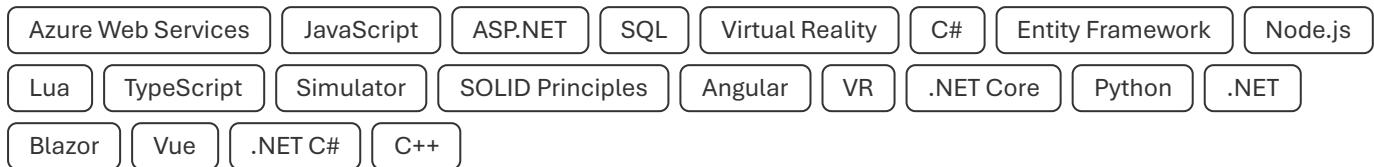
### Products



### Roles



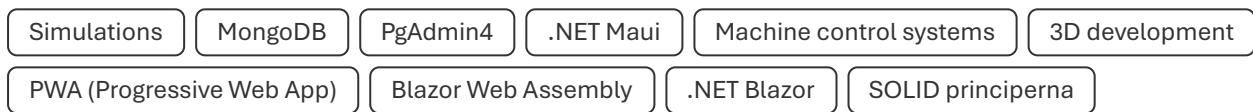
## Techniques



## Tools



## Other



## About HiQ

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HiQ is a tech consulting company focused on customized software solutions, at the intersection of digital transformation and technological development. Our 1,700 experts combine innovation, creativity, and deep tech expertise to create the sharpest digital solutions on the market.

At HiQ, we are not just satisfied with being consultants – we drive digital transformation to shape the future and help our clients lead the development in their industries. Our base is in Sweden, Finland, and Germany, and our solutions make an impact across the globe.